

# **Chemical Information Instruction, 1984–2004: Who is Leading the Charge?**

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## **Abstract**

The ACS Committee on Professional Training has long emphasized the importance of chemical information instruction (CII) in the education of both undergraduate and graduate students. In 1984 and 1993, the ACS Chemical Information Division (CINF) Education Committee surveyed US academic institutions regarding their level of CII. The results of the previous surveys have provided valuable information concerning the levels of activity and the difficulties faced in providing information instruction. However, in the 11 years since the last survey was conducted, there have been explosive changes in both information delivery and instructional methodology. We have therefore updated the survey instrument to capture such changes.

In this poster, we present the results of the latest CII survey, conducted in 2004-5.

## **History of the CII Survey**

- 1984 - Arleen Somerville and others on the CINF Education Committee conducted a survey on CII with the purpose of helping departments strengthen their CII programs
- 1993 - The Education Committee resurveyed all institutions listed in the CPT Annual Report

(Note: Both studies were published by Somerville in the *Journal of Chemical Information and Computer Sciences*)

## **Implementation of the 2004-2005 Survey**

- Paper surveys sent to Chemistry Department Chairs of 632 institutions accredited by ACS Committee on Professional Training
- Enticement: \$1 Donation to ACS Project SEED
- Web survey created and URL given on postcard reminder
- Overall survey response was 250/632 (40%)

## Structure of the Survey

- Retained core questions from the original surveys for longitudinal comparison
- Dropped outdated questions
- Added new questions

## How Is Chemical Information Taught?

	2005	1993	1984
↓ In a separate course	37 %	41.5 %	32 %
↓ Within another course	73 %	76 %	63 %
↑ Formal workshop or seminar series	17 %	10 %	-
↑ Informally by faculty	50 %	44 %	41 %
↑ Informally by librarian	27 %	27 %	-
↑ Taught themselves	21 %	17 %	-
None	3 %	3 %	-

## Why a decline in separate courses?

Who is offering a separate course?

	<b>2005</b>	<b>1993</b>	<b>1984</b>
Overall	37 %	41.5 %	32 %
% of all BS	33 %	32%	30 %
<b>% of all MS</b>	<b>52 %</b>	<b>60%</b>	<b>40 %</b>
% of all PhD	36 %	40%	32 %

## In the separate course, who teaches?

	<b>2005</b>	<b>1993</b>	<b>1984</b>
Faculty	74 %	72 %	69 %
Librarian	11 %	11 %	14.5 %
Jointly	13 %	17 %	16.5 %
Other	2 %	-	
<b><i>Librarian or Jointly</i></b>	<b>24 %</b>	<b>28 %</b>	<b>31 %</b>

### Why is there less librarian involvement?

2005	BS	MS	PhD
Faculty	79 %	95 %	48 %
Librarian	5 %	5 %	30 %
Jointly	16 %	-	15 %
Other	-	-	7 %
<i>Librarian or Jointly</i>	21 %	5 %	45 %

### Who is required to take these separate courses?

# of Institutions	2005	1993	1984
Freshman	2	1	
Sophomore	18	7	
Junior	45	72	
Senior	18	50	
Graduate Students	10	2	
Req. for Grad., all schools	5 %	0.5 %	
If offered, required for Ugrad.	82 %	65 %	66 %
Req. for Ugrad., all schools	30 %	27 %	22 %

## If CII taught within another course, one or many?

Taught in only one course?

	2005	1993
Overall	21 %	34 %

Taught in more than one course?

	2005	1993
Overall	52 %	42 %

## Within courses, who teaches?

	2005	1993
Faculty	66 %	67 %
Librarian	26 %	16.5 %
Jointly	33 %	28 %
Other	1 %	1 %

## Why an increase in librarian teaching?

2005	BS	MS	PhD
Faculty	76 %	60 %	51 %
Librarian	22 %	3 %	49 %
Jointly	31 %	40 %	33 %
Other	-	-	2 %

## How do your chemical information instructors keep current?

	2005	1993
Self taught	86 %	25 %
Attending conferences	36 %	*
By colleague or mentor	31 %	15 %
By producer/vendor of database	19 %	5 %
CAS workshop(s)	16 %	13 %
STN workshop(s)	12 %	14 %
Other	10 %	4 %
Local workshop(s)	8 %	3 %
Locally produced manuals	6 %	3 %
Library school course	2 %	1 %
Dialog workshop(s)	1 %	10 %

## **So - who is leading the charge?**

- When it comes to separate courses overall, chemistry faculty are leading the charge
- When it come to CII within other courses, librarians have made great strides
- But, since the 1993 survey, formal CII in the curriculum has declined.

**Conclusion:** Both need to lead the charge.  
(And in the same direction!)

## **Where do we go from here?**

- We need to promote librarian services more, especially in MS institutions.
- Because ACS requires accreditation, we need to reverse the trend of decreased CII within the curriculum.
- Those that teach CII seem to be embracing it—Can we learn from them?

## **Acknowledgements**

- Arleen Somerville
- ACS CINF Education Committee
- ACS Committee on Professional Training staff